corn, beans, squash, grain, and melons. The inhabitants of the Salt River Valley two thousand years ago "were expert engineers; the Anglo-Saxons of to-day can do no better than follow the lines of their ancient canals," Ray Baker argued, and at first that is exactly what they did.[8]

In 1867 Jack Swilling, a transplanted Texan, excavated nineteen miles along an old Hohokam canal out of the Salt River. Swilling's simple rock-and-brush dam and the artificial creek it fed eventually made possible the birth of the city of Phoenix, metaphorically rising from the ruins of the advanced Hohokam civilization. "Swilling's Ditch" was followed in a few years by the thirty-mile Tempe canal, dug by Mormons already well schooled for such work by their successful struggle to make green their own initially bleak, grey, and dusty valley west of Utah's Wasatch Range. By the end of the 1880s, 264 miles of aqueducts carried water to lands north and south of Arizona's Salt River. "But this was a primitive, fragile water supply system," Donald Pisani points out:[9]

> By the 1890s it watered as much as 70,000 acres, but only the longest canal, the 47 mile Arizona Ditch, had a permanent dam. The rest relied on brush and rock diversion structures which washed away during every heavy floodwater and required constant maintenance. Since these works could not be rebuilt except when the stream was low, sluggish, and manageable, the water supply available to farmers was generally restricted to the minimum flow....The need to find more water, either through storage of "flood water" or pumping from aquifers, became obvious.

A. P. Davis, of the U.S. Geological Survey's Hydrographic Branch, who was soon to become second in command of the new United States Reclamation Service, published in 1897 a glowing report of the potential for "Irrigation Near Phoenix, Arizona," should the federal government decide to lend its muscle to the effort of building a major storage reservoir in the area:[10]

> It would probably be impossible to find anywhere in the arid region a storage project in which all conditions are as favorable as for this one. The capacity of the reservoir, in proportion to the dimensions of the dam, is enormous. The lands to be watered are of remarkable fertility, in a climate that can be classed as almost semitropic, and are vastly greater in area than the water can supply. To a considerable extent, they are already settled upon, and the water is in lively demand.